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GURPS Mass Combat

Generic Land Battle Rules for GURPS

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Several GURPS worldbooks have featured rules for resolving large battles and their effects on PCs in a few die rolls. GURPS Conan, GURPS Horseclans, GURPS Japan and GURPS Vikings all have systems for land-based mass combat.

Unfortunately, each product using mass combat has to repeat all of the rules (7 to 10 pages), even though most of them are nearly identical. This is a waste of pages, and SJ Games has decreed that it will stop. Therefore, this article presents the generic portions of these mass combat rules for use across Tech Levels, along with two new examples: fantasy battles on Yrth and combat in World War I.

This material will appear in a future edition of GURPS Basic, so only a page or two, similar to one of the examples, will be needed for future worldbooks requiring mass combat rules.

This system is not a set of "war game rules" for gaming out a long battle in full detail. Instead, it gives quick answers to the most important questions for a roleplaying campaign: Who won? and What happened to the PCs? Costs are also given for raising and paying military units, for those campaigns in which the PCs are, or want to become, military leaders.

Overview

Each military force contains a number of units, each with a single type of fighter. For instance, Megalan mounted knights and yeoman long bowmen would be treated as two separate units. Most units should be from 10 to 500 men; the GM has the last word on what may be a unit.

Each unit has a Troop Strength reflecting its size, type, and quality. A force's Troop Strength is the sum of its units' Troop Strengths. All units

are recorded on a Force Roster (a blank form is at the end of the article). Each unit has a designated commander, who may be a PC or NPC. The force has a force commander, as well.

In a battle, the opposing commanders roll a Quick Contest of their Strategy skills, modified by Troop Strength and other advantages. The contest determines who wins the battle and how many casualties were taken. Meanwhile, each PC's Battle skill and choice of Risk determine his chance of Survival and Glory.

This procedure lets the GM reduce a long battle to a very few die-rolls. Again, this is not a wargaming system, but a roleplaying aid.

Mass Combat Turn Sequence

The system has seven steps for each battle (or for each day of an extended battle):

1. Determine each military force's makeup by unit. Determine each unit's Troop Strength. Total the units' TS for the force's TS.
2. If special abilities (magic, psionics, superpowers, etc.) are being used, determine each military force's Extraordinary Strength. Allocate ES points to the special effects in both offense and defense. Resolve special effects.
3. Roll for Catastrophe for each force.
4. Determine each PC's Battle skill and Risk factor, then roll for Survival and Glory.
5. Modify commanders' Strategy skills by:
 - a. Catastrophe, if any.
 - b. Relative Troop Strength.
 - c. Defensive position.
 - d. Special unit superiority.
 - e. Glory (or death) of unit leaders.
 - f. Special circumstances.
 - g. GM's appraisal of the two commanders' battle plans.
 - h. Use of magic, assassins and diviners.
6. Quick Contest of effective Strategy skills
7. Each PC on the losing side makes a second Survival roll.
8. Determine casualties for each army (and, if it matters, for each unit).

The Armies

The first step in fighting a battle is determining the composition of the opposing armies. Throughout history and literature, many types of military organization have been developed, some more "organized" than others. In general, there are four main classes of military organization (listed in order from most to least organized): modern, ancient, feudal and tribal.

Modern Armies

Modern armies are usually organized as described below. For more on Military Ranks, see p. B22.

A squad (or cavalry lance) is the smallest military unit, composed of six to 16 soldiers, including a squad leader of Rank 1 or 2 (Sergeant or Sergeant First Class).

A file is composed of two to four squads (12 to 48 soldiers) and a leader of Rank 2 (Sergeant First Class). This unit class is often omitted from many armies.

A platoon is composed of two to four files (26 to 196 soldiers) and a leader of Rank 3 (Lieutenant).

A company (or cavalry troop) consists of two to four platoons and a leader of Rank 4 (Captain or Major). At the company level and higher, there will be support personnel (e.g., cooks). There may also be special-purpose troops, temporarily or permanently attached to the unit (e.g., engineers, scouts). Larger units are usually composed of mixed troop types.

A battalion (or cavalry squadron) consists of two or more companies and a leader of Rank 5 (Lieutenant Colonel). Artillery is usually organized in battalions (or batteries), and combined with larger units.

A brigade (or regiment) consists of two or more battalions and a leader of Rank 6 (Colonel).

A division consists of two or more brigades and a leader of Rank 7 (Brigadier or Major General).

A corps consists of two or more divisions (plus attachments) and a leader of Rank 7 or 8 (a General officer).

An army consists of two or more corps and a leader of Rank 8 (Lieutenant General or General).

Ancient Armies

Ancient armies often displayed complex organizations that were not matched until the Napoleonic era. The best-known examples are Greece and Rome.

Greece

The Classic Greek armies were organized as follows:

A file was composed of eight soldiers in line behind the front soldier.

A platoon (enomotia) was composed of three to four files side by side (24 to 32 soldiers), including a leader of Rank 3 (enomotarch), plus a rear guard leader of Rank 2 (ouragos).

A company (pentekostys) consisted of two to four enomotiai (50 to 128 soldiers), including a leader of Rank 4 (pentekontere). This is the basic unit of the Greek phalanx, a rectangular formation of heavy infantry with spears

A battalion (lochos) consisted of four to six pentekostyes (200 to 768 soldiers) and a leader of Rank 5 (lochagos).

A division (mora) consisted of two to four lochoi (400 to 1,540 soldiers) and a leader of Rank 7 (polemarch).

The Spartans had six morai and Athens had ten, one for each tribe of Athenians.

Rome

The organization of the legions of the Roman Empire (in the period 100 B.C. to 300 A.D.) was as follows (see GURPS Imperial Rome for more details):

A century contained 80 to 100 legionaries, including a leader of Rank 4 (centurion). The centurions from the First Cohort outranked the rest (Rank 5). The Senior Centurion of the First Cohort, the Primus Pilum ("First Javelin"), (Rank 6) was second-in-command of the legion in all but name. The principales (Rank 1) and the cohort standard bearers, or signifiers (Rank 2) were the lowest petty officers. The optiones, or

"chosen" were the centurion's immediate assistants (Rank Level 3); sometimes there was more than one optio in a century.

A cohort consisted of 6 centuries (480 to 600 soldiers) and was led by a tribune (Rank 5). The Tribune of the First Cohort (Rank 6) was the official second-in-command.

A legion had 10 cohorts (4,000 to 6,000 soldiers) plus a unit of about 120 Light Cavalry (LC) to protect the flanks and for use as scouts and messengers, and was led by a legate (Rank 7) and the Prefect of the Camp (Rank 6), second-in-command of all non-combat matters.

A large army would consist of several legions and auxiliary units.

Roman auxiliary cavalry was divided into units called alae, between 500 and 1,000 men strong. Each ala was divided into smaller units called turmae, which had about 20-40 men trained to work in groups of 6-10 men each.

Alae were led by a tribune; the turmaes were commanded by decurions (Rank 3). There were 1-4 decurions on each turma; in theory, they commanded units of 10 men.

Feudal Armies

Feudal armies are much more loosely organized. The main constituents are the feudal levies. These march to battle under their local leader. Once with the field army (which is simply all the troops under a single command for a battle or campaign) they are formed into ad hoc units with similar equipment and the senior man in each such unit is designated its commander. Such units are usually no more than 100 strong; that is about the largest force that one man can control by voice and hand signals. These units are normally called companies and their commander is called a captain. Such appointments are only for the campaign; they do not require the Military Rank advantage. The captain appoints a petty officer for every ten soldiers; these also do not require Military Rank.

In addition to feudal levies, some feudal armies had small, permanent units, usually the rulers' elite guards. These would be organized along more modern lines.

The higher appointments of a feudal army are also ad hoc. The force is usually broken into three components: Van or Vanguard (the advance guard, which marches first), Main and Rear. Each body is under a commander selected by the king. The commander is usually a senior

noble or veteran mercenary; again the appointment is only for the campaign. Each commander selects a number of aides, ranging from messengers to senior advisers.

Mercenary forces in a feudal setting can be of any size and organization. Anyone who can attract a following can set himself up as a sell-sword. They usually ape the composition of the armies around them. Commonly any leader who can supply up to 100 men is called captain, while one who can supply several companies calls himself a general.

Tribal Armies

Primitive societies fight by tribe, clan and band rather than in any organized formation. The only title of command is chief, and may represent anything from half a dozen rogues to thousands of warriors. Some tribal armies include female warriors and, therefore, can field relatively larger forces.

Troop Strength (TS)

The next step is determining the strength of the soldiers within the army. The Troop Strength value of an individual in a unit depends on his type and quality. Multiply this value by the number of men (or other creatures) in the unit for the unit's total TS.

Troop Type

Each unit is composed of a single troop type. All persons in a unit are similarly equipped. Troop types are differentiated by armor, weapons and mobility.

Usually armor and weapons are lumped together into classifications of "Heavy," "Medium," and "Light." Heavy troops have rigid armor and heavy, or "shock," weapons; medium troops usually wear flexible armor (e.g. chain mail) and have somewhat less damaging weapons; light units have little or no armor (leather or less) and have less damaging weapons. A final division is whether the soldiers have formal training in weapons and other military matters. Soldiers without training (and often with no armor and improvised weapons), such as feudal peasant levies, are called "irregulars." Beware of underestimating the strength of irregulars, since they can still be battle-hardened elite warriors (see Troop Quality and Morale below).

Issues of troop mobility come down to whether or not the soldiers use vehicles for transportation and in combat. Those who walk are called

"infantry" and those with some vehicle are usually called "cavalry," be it a horse, a tank (armored cavalry), or a helicopter (air cavalry).

If a unit also uses ranged weapons, a bonus to the Troop Strength is added. Those troops with specialty weapons, such as artillery, and members of non-human races are put into separate units.

Some units treat a group of soldiers as one unit, usually the crew for a large piece of equipment, such as artillery. The TS of these units includes the crew. The crew has no separate TS, except when they get separated, such as in a Rout. In this case, treat these soldiers as TS 2.

The following tables provide guidelines for the Troop Strength of various troop types:

Equipment

Light +3
Medium +4
Heavy +5
High Tech armor +1/2 DR
Fine or Very Fine weapons +1
Irregulars -1/3 TS (round down)

Mobility

Light Horses + 1
Medium Horses +2
Heavy Horses +3
No stirrups - 1
Armored vehicles (e.g. armored personnel carriers, but not tanks) +TL
Flying vehicles (e.g. helicopters) +TL

Ranged Weapons

Sling, javelin +1

Ordinary bow +2
Longbow, composite bow or crossbow +3
Pistol or other short firearms +3
Rifle or other long firearms +TL

Special Weapons

Light Chariots (TL 2-) (add TS of additional Light missile wielder) + 15
Medium Chariots (TL 2-) (add TS of additional Medium missile wielder) +25
Heavy Chariots (TL 2-) (add TS of additional Heavy missile wielders) +35
Elephants +100
Small Ballistae (TL 5-) +15
Large Ballistae, Small Siege Engines or Light Artillery (TL 5-) +25
Large Siege Engine or Heavy Artillery (TL 5-) +50
Light Tank +25
Medium Tank +40
Heavy Tank +60
Fighter Aircraft +50
Bomber Aircraft +100
Helicopter Gunship +50
Modem artillery (TL 6+) +100

The value of other special weapons is up to the GM.

Examples: Medieval knights are Heavy Cavalry, giving a TS of 8 (5 for heavy weapons and armor and 3 for heavy warhorses). If they carried crossbows, the TS would be 11 for the ranged weapon bonus. Modem TL 7 Air Cavalry, consisting of six light infantry and a helicopter gunship with a crew of two, would have a TS of 17 for each soldier (3 for light weapons and armor, +7 for firearms, and +7 for mobility), plus a TS of 50 for the helicopter, which operates as a gunship after dropping off its infantry, for a total of 152. The crew of the 'copter is included in by the helicopter Troop Strength.

The Stirrup

There is some controversy over the value of stirrups for cavalry. The traditional view is that stirrups significantly increased the effectiveness of cavalry, while some military historians say this claim is overblown.

For these rules, cavalry troops without stirrups have a -1 TS penalty, as shown in the Cavalry table above. They are limited in the weapon tactics they can use and the missions they can perform. Cavalry charges using couched lances cannot be performed without stirrups. Cavalry without stirrups will generally be used for scouting, raiding, flank and missile attacks, and charging broken or shaky formations of infantry. If battle plans call for cavalry to charge well-formed infantry, especially pikemen, the GM should penalize the Strategy roll appropriately.

Though Light Cavalry have the same Troop Strength as Light Infantry, there is a Special Unit Superiority bonus (see below) for cavalry, so a completely LC force gets a +3 Strategy bonus against a force composed entirely of infantry, the equivalent of a 2 to 1 advantage.

Experimental Weapons

Shortly after a new weapon is introduced, it may be deemed to be experimental, while armies struggle to grasp the best way to use the new technology and while the "bugs" are worked out. The GM may rule that such weapons are worth less TS than indicated above, subtracting up to half the given Troop Strength or more in cases of extremely unreliable or risky weapons.

Non-Human Races

Members of non-human races get a bonus (or penalty) to their TS equal to half (ST modifier + HT modifier + Extra Hit Points) -- each level of Increased Strength counts as a ST modifier of 10. For example, a reptile man gets +3 bonus and a halfling gets a -1 penalty. TS can be no lower than 1 because of racial penalties. Bonuses for ranged weapons and armor are added after determining this minimum TS. For example, halfling light infantry have a TS of 2, while halfling heavy infantry with slings have a TS of 5.

TL Differences

When armies of differing TLs fight, a special adjustment is made to compensate for advances in tactics, logistics, medicine and other fields, plus the sheer shock value of advanced weaponry: the more advanced army's gets a bonus to the Strategy roll equal to the difference in TL+2. So, a TL5 army attacking a TL3 army would add +4 to their Strategy roll. A small, technically advanced force can still be overwhelmed by superior numbers, better strategy, or unlucky accidents like anyone else. GMs who feel this adjustment is too unbalancing can ignore it,

reduce it or put an upper limit on the effects to the Strategy contest contributed by TL.

Increases in TL may also increase the effectiveness of soldiers in large numbers. Therefore, the limit of 10 to 1 on bonuses to the Strategy roll for relative TS is waived for the higher TL army when the difference in TL is greater than 2 (see Relative Troop Strengths below).

Superpowers

Supers with significant offensive and defensive abilities should calculate their TS using a variety of the above rules. Those Supers with more subtle, less front-line powers can consult the Exceptional Powers in Battle section.

Use the High Tech armor adjustment for Supers with large amounts of DR. Use the ST and HT adjustments from the Non-Human Races section above to compensate for high levels of those attributes. Flying Supers with ranged offensive abilities (Flamin' Jane for example) should use the Helicopter Gunship TS as a base, while flyers without ranged abilities use the Flying Vehicles mobility bonus. Gadgeteers with advanced technology can use the TL Differences section to adjust their TS. By using the available tables, the players and the GM should be able to calculate satisfactory TS values for Super individuals.

Troop Quality and Morale

Troop quality is determined by the average experience of the men in the unit. This directly determines the unit's base Morale (see table below).

If the campaign situation or adventure does not dictate the quality of a body of troops, determine troop quality by rolling three dice on the chart below.

Use the same chart when determining the quality of a newly-raised unit (see Raising Troops) or when recruiting replacements -- in this case, it gives the average quality of the replacements you were able to hire.

Morale is used to determine the reactions of units due to losses and overwhelming odds. More experienced soldiers are more likely to hold their position in a bad situation than raw recruits.

Troop Quality Table (roll 3d)

| Die Roll | Troop Quality | Battles Fought | Base Morale | Troop Strength | Base Pay & Cost to Raise |
|----------|---------------|----------------|-------------|----------------|--------------------------|
| 3* | Elite (E) | 15+ | 16 | 2 x base TS | +50% |
| 4-6* | Veteran (V) | 10-14 | 15 | 1.5 x base TS | +25% |
| 7-9 | Seasoned (S) | 6-9 | 14 | 1.2 x base TS | +10% |
| 10-12 | Average (A) | 4-5 | 13 | base TS | base |
| 13-15 | Green (G) | 1-3 | 11 | .8 x base TS | base |
| 16-18 | Raw (R)(t) | 0 | 9 | .5 x base TS | -20% |

*Roll again if you were trying to raise a new unit, or to recruit more than 10 men.

(t) No battlefield experience. If troops of this quality are also Irregulars (no military training), their morale is reduced by an additional -3.

Typical Skill Table

Troop Quality..Weapon..Tactics..Battle

Elite* 15 11 15
Veteran* 14 9 13
Seasoned* 13 7 12
Average 12 6 9
Green 11 5 8
Raw 10 4 7

*This type of troop has the Combat Reflexes advantage.

Unit Commander and Morale

A unit commander's leadership can affect the morale of his soldiers. Add +1 to Morale for every 3 skill levels in Leadership skill over 12 and -1 for every 3 levels below 12. For example, a Seasoned unit with a commander with Leadership 15 (+1) has a Morale of 15, while a commander with Leadership 9 (-1) would bring Morale down to 13. To randomly select the Leadership skill of a unit commander, roll on the Force Commander's Experience table below, substituting Leadership for Strategy.

When a unit gets a new commander (no matter how experienced), drop all troops except Raw to the next lowest Quality.

Force Commander's Experience Table (roll 3d)

Use if one or both force commanders are NPCs.

Die Roll..Quality..Battles..Strategy Skill

| | | | |
|-------|----------|-------|------------|
| 3 | Elite | 15+ | 16+(1 die) |
| 4-7 | Veteran | 10-14 | 14+(1 die) |
| 8-11 | Seasoned | 6-9 | 14 |
| 12-15 | Average | 4-5 | 12 |
| 16-17 | Green | 1-3 | 10 |
| 18 | Raw | 0 | 9 |

Unit Morale and Troop Strength

Units that are demoralized (i.e., below their base Morale) often fight less effectively than normal. At the GM's option, the Troop Strength of demoralized units can be reduced or units whose Morale is above their base Morale may also have their TS increased. A unit's Troop Strength can be reduced (or increased) by 10% for each point their current Morale level is below (or above) their base Morale.

Example: Due to poor leadership and some serious defeats, a Veteran Heavy Infantry platoon (30 soldiers with total TS of 225 and base Morale of 15) has an effective Morale of 13, the same as Average quality troops. This unit's TS could be treated as 180 until they can regain their base Morale level.

Changing Troop Quality

In a continuing campaign, units will lose troops and replace them -- sometimes with experienced men, sometimes with raw recruits. Keep track of the number of battles (not just days of battle) a unit fights, counting anything over 20 as 20. When a unit adds new men for any

reason, the new Troop Quality is the new average experience of the men. GMs may not want to count battles where there was little resistance, such as engagements with odds of greater than 10 to 1.

Example: Titus of Megalos commands a veteran unit, with average experience of 10 engagements. It has 87 men. Titus recruits 11 more men, of "green" quality. Average experience is computed as follows: 87×10 for the old troops. 11×1 (use the low end of the experience scale) for the new men. 870 plus 11 is 881 . Divide that by 98 men, for an average experience of just under 9. Round down to 8. The company is now considered to have an average experience of 8 engagements, making it merely "seasoned." Two more fights will bring it back to "veteran" status.

Six months of military training will change Untrained troops into Raw quality. A year of training will turn Raw troops into Green. No further increases in quality can be made without actual battle experience.

Building and Feeding an Army

An army travels on its stomach, but it won't go very far if you don't pay it, either. The following sections gives costs for raising, feeding and paying troops.

Raising Troops

The cost to raise a body of troops is determined by troop type. The general method of determining this is to total the cost to purchase equipment and pay a hiring bonus. The hiring bonus is usually equal to a month's pay, or about 10% of the equipment cost.

GMs may modify costs for special circumstances, such as unusually good or bad availability of men, horses and equipment.

For ranged weapons, add the equipment cost and the difference in hiring bonus to the total, per man. The hiring bonus is usually considerably higher for trained missile troops because of their lower availability.

Normally, troops of Elite and Veteran quality cannot be "raised" -- there are not that many trained men currently unemployed, unless the GM decides that a mercenary unit is available.

The GM decides what sort of troops are available. PC leaders will usually want to raise the best troop they can, given their budget. If the

GM needs to determine troop quality randomly, use the table above under Troop Quality and Morale.

Paying and Maintaining Troops

The cost to feed and maintain an infantryman is equal to the cost of living for Status level 0; the cost to feed riding animals is generally the Status 0 cost of living times their size in hexes. Particularly large animals (e.g., elephants) or those with expensive feeding needs (e.g., carnivores) will cost more; how much more is up to the GM. Troops must be fed, or a unit will revolt, dissolve or desert.

Troops also expect monthly pay; unpaid troops can be dangerous to their leaders or employers. Morale drops by 1 after the first missed payday, 2 after each succeeding missed payday. Make a Morale roll on each missed payday, after reducing morale. A failed roll gives bad results, as per the GM's whim. Every second payday made increases morale by 1, but only to the extent of eliminating the negative modifiers for previously missed paydays. Limit the Morale of Elite and Veteran units to 14 for determining the results of no pay.

Generally speaking, human troops expect to be paid about 10% of the cost-to-raise, each month, with the bonuses given in the Determining Troop Quality table for experience. An additional 50% bonus will increase morale by 1 for the next month; a 100% or more bonus will increase morale by 2 for the next month. Income from looting counts as pay. Troops may forego some pay, if the chances of substantial looting in the near future are high. If those chances are not fulfilled, though, the backlash from the troops could be much worse. In some eras, troops may be paid in lands, citizenship and other inducements.

Conscripts fighting against their will do not need to be paid, though some conscripted armies still do pay their soldiers (e.g. the U.S. Armed Forces during the Draft). Additional paid security forces will often be needed to keep unpaid conscripts from deserting. These forces should be better equipped than the conscripted forces to maintain order (e.g. the Republican Guard of Iraq during the Gulf War). Conscripted troops generally have lower morale than volunteers; -1 for paid conscripts, and -2 or lower for unpaid conscripts.

The Battle

This section describes the method for determining the outcome of the battle between the armies constructed in the previous section.

Special Abilities

In some settings, special abilities (magic, psionics and superpowers) can be used in warfare. Before rolling for catastrophes, resolve the effects of special abilities on the battle. For more details, see *Exceptional Powers in Battle*, p.19.

Catastrophe

When the battle begins, the GM rolls three dice on the following table, once for each side, to see if something goes disastrously wrong. The commander (but no other PC) can use Luck, if he has that advantage, to re-roll an catastrophe.

Catastrophe Roll

3-7 -- No catastrophe.

8-9 -- Enemy manages some sort of surprise: -1 to Strategy roll.

10 -- Enemy receives unexpected reinforcements or is just lucky. Increase his Troop Strength by 10%. (The GM may be creative about what occurred.)

11-The battle plans have been partially revealed to the enemy by turncoats, spies, magic, etc.: -2 to Strategy roll.

12 -- Dissension among allies or top leaders weakens morale. -2 to Strategy roll, -1 to Morale of all units.

13 -- Enemy reveals a terrifying atrocity: -1 to Morale of all units if Morale roll is failed; +1 to Morale, in anger, if Morale roll is made.

14 -- Ally or unit commander defects to enemy, revealing plans and taking his troops with him. Recalculate forces' Troop Strengths; -2 to Strategy roll.

15 -- An important unit leader (rolled randomly among leaders commanding at least 20% of that side's Troop Strength) is wounded early in battle (2d of damage): -1 to Morale of all units, -2 to Morale of his unit.

16 -- Commander wounded early in battle (2d of damage): -2 to Strategy roll, -3 to Morale of all units.

17 -- Important unit leader (rolled randomly as above) killed (or if a PC, wounded and unconscious) early in battle: -2 to Morale of all units, -3 to Morale of his unit. (If a PC, he makes no further Survival or Glory rolls.)

18 -- Commander killed early in battle (or if a PC wounded and unconscious). Base Strategy roll cut in half (round up). -5 to Morale of all units.

The Catastrophe table may be altered depending on the culture involved. For example, defections are more common than atrocities in feudal Japan, so their positions in the above table could be switched.

Consequences to Player Characters

The more daring and brave a warrior is, the more likely he is to get hurt! Each PC in a battle must roll against Battle skill. Battle skill cannot be studied or taken as a beginning skill. It is equal to the average of the PC's Tactics skill (defaulting to IQ-6) and his main weapon skill, with +2 if the character has Combat Reflexes and +1 if the character has Danger Sense. If he uses both a melee and a missile weapon, base Battle skill on the melee weapon. Since the battlefield is a very dangerous place, no matter how careful or skilled a soldier is, Battle skill rolls are limited to 16. If the PC is rolling for survival at a penalty, due to Risk or being on the losing side, these modifiers are first applied to Battle skill before imposing the limit of 16. Therefore, PCs with Battle skill greater than 16 can still receive some benefit.

The Tactics skill covers the PC's prudence; the weapon skill covers his ability to kill his foes before they kill him. Note Battle skill on the PC's record sheet in pencil, since it will change if he goes into battle with different weapons or if his Tactics or Combat skills are improved.

Risk

A PC can choose to take more or less Risk in a battle, announcing his choice before his Survival roll. He may choose any number from -6 to +6 as a modifier, -6 being very risky and +6 being very cautious. This Risk modifier is applied to the Survival roll. However, the opposite modifier applies to his Glory roll. No guts, no glory! If Survival is -4, then Glory is +4. Cowardly PCs and those PCs in units held in reserve or who otherwise were not exposed to the full impact of the battle, should not pick a Risk factor below -1. Overconfident PCs should not pick a Risk factor above +1. Berserk PCs should not pick a Risk above 0.

Survival Roll

If the Survival roll results in damage, take the injury directly off HT -- subtract Toughness. Determine hit location(s) randomly. If a PC unit or army leader takes enough injury to fall unconscious, his unit's final Strategy roll is affected as per Catastrophes (see above). A PC can use Luck to re-roll the Survival roll.

Battle Skill.....Roll Result

| | |
|-----------------------|-----------------------|
| Made by 5+ | Unhurt |
| Made by 1-4 | 1 hit of damage |
| Made exactly | 2 hits of damage |
| Missed by 1-2 | Damage Table Column A |
| Missed by 3-4 | Damage Table Column B |
| Missed by 5-6 | Damage Table Column C |
| Missed by 7+ | Damage Table Column D |
| (or critical failure) | |

See Damage Table at the bottom of the page.

Damage Table

| TL..... | A..... | B..... | C..... | D |
|---------|-------------|-----------------|------------------|------------------|
| 3- | 1d+2-DR | 2 x 1d+2-DR | 2 x 2d+2-DR | 3 x 2d+2-DR |
| 4-7 | (TL/2)d-DR | 2 x (TL/2)d-DR | 2 x (TL)d-DR | 3 x (TL)d-DR |
| 8-9 | (TL-3)d-DR | 2 x (TL-3)d-DR | 2 x (TL+3)d-DR | 3 x (TL+3)d-DR |
| 10-13 | (TL)d-DR/2 | 2 x (TL)d-DR/2 | 2 x (2TL)d-DR/2 | 3 x (2TL)d-DR/2 |
| 14 | (TL)d-DR/5 | 2 x (TL)d-DR/5 | 2 x (2TL)d-DR/5 | 3 x (2TL)d-DR/5 |
| 15-16 | (TL)d-DR/10 | 2 x (TL)d-DR/10 | 2 x (2TL)d-DR/10 | 3 x (2TL)d-DR/10 |

Glory Roll

A warrior who gains glory will have improved Reputation, and the associated reaction bonus, for the specified period. The indicated modifiers to the Strategy roll are used only if the PC is a unit leader. This Strategy bonus is 1 point higher (and any penalty is 1 point worse) if the PC is force commander. Roll for Glory even if the character dies -- a glorious death can inspire the troops.

Battle Skill Roll and Result

Critical success -- Covered with glory: +2 to Reputation for 1d months, and +1 permanently; roll for promotion; +2 to Strategy roll.

Made by 7-9 -- Fought with great courage and heroism: +1 to Reputation for 1d-2 months (1 month minimum); roll for promotion; +1 to Strategy roll.

Made by 4-6 -- Fought heroically: roll for promotion; +1 to Strategy roll.

Made by 0-3 -- Fought competently.

Missed by 1-3 -- Fought adequately.

Missed by 4-6 -- Fought poorly: -1 to Reputation for 1d-2 months (1 month minimum); -1 to Strategy roll. Superior officer notices your ineptness or caution; make a reaction roll to see how he will treat you after the battle. A result of Bad or worse indicates a possible demotion in rank.

Missed by 7+ (or critical failure) -- Fought very badly; -2 to Reputation for 1d months; -3 to Strategy roll. Results from superior officer as above. In addition, if you survive the battle, someone your equal in rank will publicly name you a coward and, in some cultures, will try to provoke a duel.

Some results may be different depending on the culture involved. For example, a loss of Reputation in feudal Japan may cause a character to contemplate suicide.

Promotion

Check the reaction of the character's superior officer after the battle, based on the character's improved Reputation. With a Very Good reaction in some cultures and time periods, the character may be offered a battlefield promotion of one Rank (see p. B22). If the reaction is Excellent, the PC may also be offered a transfer to an elite unit. In any period or culture, a favorable reaction (Good or better) will dispose the superior to do the heroic warrior some favor; this may well consist of an especially dangerous and honorable position in the next battle.

Strategy Modifiers

The GM now takes into account the circumstances of the battle, which may raise or lower the effective Strategy skill of each side's commander. All these modifiers are cumulative.

Relative Troop Strengths

Compare the troop strengths of the opposing forces. Divide the greater TS by the lesser one for the "odds factor." For example, a TS of 100 vs. a TS of 50 is an odds factor of 2. The greater the odds factor, the greater the bonus to Strategy skill of the stronger force's commander.

Odds Factor: Strategy skill bonus

| | |
|--------------|----------|
| 1.2 or less: | No bonus |
| 1.2+ to 1.4: | +1 |
| 1.4+ to 1.7: | +2 |
| 1.7+ to 2: | +3 |
| 2+ to 3: | +4 |
| 3+ to 5: | +5 |
| 5+ to 7: | +6 |
| 7+ to 10: | +7 |

greater than 10: +8

When a force is more than 2 TLs higher than the opposing force, the 10 to 1 odds limit is waived for the higher TL army. Each additional 10 to 1 odds is equal to another +1 Strategy. For instance, when a TL 6 force is fighting a TL 3 feudal army, 30 to 1 odds would yield a +10 on the Strategy roll.

Defensive Position

If one side is clearly the defender, it gets Strategy modifiers based on its position. When appropriate, these modifiers are cumulative.

Attacker attacks downhill: -3 or worse

Attacker approaches under cover: -1

Attacker must come up a gradual incline: +1

Attacker must come up a steep incline: +2

Attacker must come up a steep incline on bad ground: +3

*Attacker must force a narrow passage (defile, pass, ford, or bridge): +2 to +8, depending on how narrow it is.

*Defender is protected by palisade, breastwork, trenches, dry moat or unforded/unbridged river: +3

*Defender occupies a manor, stronghold, unwalled city or fort: +4

*Defender occupies a walled city: +6

*Defender occupies a castle: +8

These defensive factors can be combined. For instance, a castle on top of a steep hill would count as +10.

* Reduce the value of any modifier with an asterisk (*) by 2 if the attacker has artillery or mining crews with Demolition experts. Battles involving the starred modifiers use a different set of combat tables (see Resolving the Contest of Strategy).

Special Unit Superiority

A force will receive a Strategy bonus if it has at least a 2 to 1 superiority in the numbers of certain troop types, regardless of troop quality. In a siege action all cavalry are counted as infantry. If the opponent has no troops of the equivalent type, treat as 5 to 1 or better. There are three types of superiority for low tech armies (TL 5-): artillery (only in siege situations); cavalry (only in non-siege situations); and ranged weapons (not artillery). In modern armies (TL 6+), there are

also three types of superiority: artillery (always counts), armor and aircraft. Other types of units, such as undead or high tech Mobile Infantry, can be considered special units at the GM's option.

Each type of superiority counts separately: if you have a force of mounted archers and the foe has no cavalry or missiles, you have 5 to 1 superiority in both missile weapons and cavalry. Ratios for determining superiority are rounded down.

Ratio Strategy skill bonus

2 to 1 +1

3 to 1 +2

5 to 1 or better +3

Neutralizing Special Units

Some types of units neutralize the superiority of the special units described above. For instance, pikemen can neutralize a cavalry charge, and anti-aircraft artillery can neutralize the advantage of air superiority. When figuring special unit superiority, count these neutralizing units as the same type as the special unit for the side with less of the special unit. Thus, pikemen cannot give you cavalry superiority, but they can neutralize the other force's superiority.

In cases where the neutralizing unit is also a special unit for other purposes (e.g., anti-aircraft artillery), these units cannot count as both. So, artillery devoted to the anti-aircraft role do not count towards artillery superiority.

Special Circumstances

Add Strategy bonuses or subtract Strategy penalties for any of the following situations. All these circumstances are determined by the GM or the group's roleplaying; for instance, a unit is unsupplied if the GM says it is.

Taken totally by surprise -5

Partial surprise -- less than an hour's warning -2

Force-marched into battle -3

No supplies -3

Short supplies in a besieged city or castle -2

Supplied by forage only - 1

On home grounds +2 (not cumulative with Defensive bonus for village, temple, city, manor or other fortification)

GMs may give additional bonuses or penalties from -5 to +5 for other factors as they see fit: e.g., a heavy fog when trying to launch a closely coordinated attack might be worth -3.

Battle Plans

The GM should sketch a map of the battlefield (or perhaps of several, optional battlefields) for the players based on their armies knowledge of the area, especially if the PCs are unit or force leaders. The GM should then ask the players to give him a battle plan for their side (for both sides, if there are PCs on both sides or if there is an Adversary Player for the non-PC side). If the GM thinks a plan is especially good or bad, it deserves a Strategy roll bonus or penalty of from +3 to -3.

If the GM is playing the part of the adversary, he should occasionally spring a tactical surprise on the players. Describe what happens realistically. If they handle it well, they get a Strategy roll bonus; if they react poorly, they suffer a penalty.

Special Forces

If either side has the services of assassins, commandos, scouts or spies, their proper use can be an important part of the battle plan. Special forces like these may be sent on a variety of missions. The success of each mission depends on the number of personnel assigned and (in general) on the Stealth (or in some cases Tactics) skill of their leader. Special forces missions can be played out as whole adventures (see GURPS Special Ops), or abstracted into the general battle plan.

Assassination of the enemy leader will be a Catastrophe for the foe, if it works. But it's risky, and if it fails, the enemy's morale will be improved, especially if your spies are publicly executed before the battle!

Scouting the enemy forces is much safer and easier, and will usually give a + 1 or, if many commandos are used, a +2 on Strategy.

Security assignments can be given, to protect the lord and generals from opposing assassins, or to ambush and kill enemy scouts.

Other creative uses of spies should be encouraged and rewarded by the GM. If assassins are paid well and treated with respect, they will undertake almost anything.

Diviners

A careful commander might consult diviners before a battle. The effectiveness of divination in general is known only to the GM . . . and even in a campaign where magic is real, an individual diviner may be a fake. A general may have many diviners, but he must pick just one to believe. A genuine diviner who makes his skill roll gives +1 to his lord's Strategy roll, or +2 on a critical success. If the diviner is a fake, average his own Strategy roll with the commander's, unless the commander either fully accepts (use just the diviner's Strategy) or discounts the diviner's advice (use the commander's Strategy). The details of these modifiers, of course, must remain secret from the players.

Resolving the Contest of Strategy

After determining the opposing commanders' effective Strategy, a Quick Contest of Strategy is rolled to determine how well the troops are handled. (For battles involving a total of less than 200 men, Tactics skill may be used instead.) The force commander can use Luck, if he has that advantage, to reroll the Contest.

The winner of the Quick Contest of Strategy is the winner of the battle. The difference in the amounts by which the commanders make (or miss) their rolls will determine how decisive the victory is. Whether defeated troops withdraw in good order or rout depends on their Morale roll (see below). Refer to the appropriate table below to find the outcome. Use Tables B or C if any of the starred Defensive Position modifiers applied (see p.00).

Example: One leader makes his roll by 4, the other by 2. The difference is 2; the battle was inconclusive. If one leader makes his roll by 4 and the other misses by 4, the difference is 8 -- a much more one-sided battle.

A. Open-Field Battle

Won by 0-3: Inconclusive battle. Each unit on both sides should make a Morale roll. Those who succeed hold position. Those who fail by only 1-4 withdraw in good order. Those who fail by 5 or more rout (see below).

Won by 4-7: Marginal victory. Each unit of the loser withdraws in good order if it can make a Morale roll; otherwise it routs.

Won by 8-12: Definite victory. As above, but loser's Morale is -2.

Won by 13-16: Great victory. As above, but loser's Morale is -4.
Won by 17+: Overwhelming victory: The loser routs.

B. Defender Wins

Won by 0-3: Inconclusive battle. The attacker is thrown back but holds his former position. He may attack again on the next day, at -2 Morale.
Won by 4-7: Marginal victory. The attacker holds position if more than half its troops can make a Morale roll; otherwise the whole force withdraws in good order.
Won by 8-12: Definite victory. As above, but Morale roll is -2.
Won by 13-16: Great victory. Each attacking unit withdraws in good order if it can make a Morale roll; otherwise it routs.
Won by 17+: Overwhelming victory: As above but Morale is -2.

C. Attacker Wins

Won by 1-3: Inconclusive battle. The attacker technically won, but the defender will suffer no Morale penalty on the next day of battle.
Won by 4-7: Marginal victory. Both sides hold position. The defender will be at -2 Morale on the next day of battle.
Won by 8-12: Definite victory. The defender holds position if more than half its troops can make a Morale roll; otherwise the whole force withdraws*.
Won by 13-16: Great victory. The attacker captures the position. Each individual unit of the defender withdraws* in good order if it can make a Morale roll; otherwise that unit routs or, if there is no escape, surrenders.
Won by 17+: Overwhelming victory. The attacker captures the position and takes the enemy commander alive. Each individual unit of the defender withdraws* in good order if it can make a Morale roll at -2; otherwise that unit routs or, if there is no escape, surrenders.

*If defenders get a "withdraw" result and have nowhere to go, make a second Morale roll for each such unit at +2 over the previous roll. A success means that unit holds position and another battle is likely. (These defenders probably have their backs to a wall or have retreated to an inner stronghold.) A failure means that unit surrenders.

Some outcomes on these tables may be modified by culture. For instance, losing feudal Japanese commanders in Table C who cannot withdraw will attempt suicide.

Sieges

In an actual siege involving a defender within a walled city or castle, the above rules and Tables B and C only apply when the attacker storms the fortifications. The overall siege is a long, drawn-out affair, taking months or even years to complete. Many other tactics may be employed instead of an all-out assault, which tends to be very bloody. Cutting off supplies and water to the area and waiting for starvation, bribing someone to open the gate, catapulting diseased animal carcasses and firebrands, and infiltrating with spies are all alternate methods of taking a fortification.

Morale

Each unit starts with a Base Morale, determined by its Troop Quality. Campaign events can affect morale before the battle. Catastrophes affect morale for that battle only. Loss of established leaders affects morale until the force wins a clear victory; as long as the force is defeated, has inconclusive battles or marginal victories, the morale will stay low.

Example: Titus of Megalos has a veteran unit -- base morale 15. Loot was good last month, so they entered the battle with a +1 morale, for a 16. In the first hour of battle, Titus was wounded (-1 morale). So effective morale is back to 15. After the battle, morale returns to 16.

Morale is used to determine whether a defeated unit withdraws in good order, or routs. The GM may also require a morale roll whenever a unit is asked to do something dangerous or unreasonable (e.g., fight at unreasonable odds, go without food, water or pay, scale a castle wall despite the fact that the defenders are dumping sewage over the walls, etc.).

Morale Modifiers

In a war against a hereditary foe, Morale is always +1.

Units defending home territory always have +2 morale.

Atrocities always require a morale roll. On a failed roll, morale drops by 1. On a successful roll, morale rises by 1 instead, in anger.

Morale before a battle is +1 if the unit has defeated the same foe this year. It is -2 if the unit has been defeated by the same foe this year.

A force that knows its position was penetrated by spies will have -1 morale, or -2 (at least) if important people were killed. It will have +2 if enemy spies were caught and slain. Likewise, a force will have +1 morale if it knows its spies have succeeded in scouting the foe, and -1 if it knows its spies were killed.

Bonus payments can increase morale (see Paying and Maintaining Troops, p.00).

Rout

Units, or even the entire force, may rout, fleeing in panic, on a very bad combat result (see Resolving the Contest of Strategy) and/or a failed Morale roll. If a unit routs, its casualties are increased. Whether a routed unit will ever reform as a unit is up to the GM. The survivors may be able to reassemble under a number of circumstances: the battle was in friendly territory, the unit was largely cavalry, there were plenty of places to hide, the leader is charismatic, etc. PCs whose units are routed (or totally crushed) must make their second Survival roll at -2 (see Second Survival Roll).

Casualties

After the Contest of Strategy, casualties for each force are determined. This does not affect the PCs; their fates are determined by their Survival rolls. Even if a PC's unit is entirely wiped out, a PC who makes his Survival rolls gets away somehow.

Find the Quick Contest of Strategy difference on the Casualty Table below. Opposite that number (a positive number for the victor, a negative number for the loser) is listed the percentage of troops that side lost in the engagement. For example, if the difference is 3, the loser consults "-3" and loses (4:1 +20)% of his troops as casualties, while the victor consults "3" and loses (4d)% of his troops.

If the defender was protected by his position (modifiers with an * under Defensive Position), add that modifier to his Contest difference (but not his opponent's) before assessing casualties. For instance, if the defender lost the roll by 3, but had a +3 Strategy modifier due to position, it would take casualties on the "0" line.

A unit's armor type (heavy, medium, or light) moves them downward on the Casualty Table.

Heavy Cavalry, Heavy Infantry: adjust result down by 4 lines.

Medium Cavalry, Medium Infantry: adjust result down by 2 lines.

Light Cavalry, Light Infantry, Pikemen: adjust result down by 1 line.

If a unit routs, roll a die and adjust casualties upward by that many lines on the Casualty Table.

If the GM thinks that the battle was particularly intense, the casualty results for both sides can be moved up one or more lines.

Round all losses up. Losses are divided evenly among the units of a force unless the GM decrees (or a PC leader says) that some particular unit was leading the fray or holding back.

Half the casualties (round down) are killed or permanently maimed. The other half recover at $(2 + TL)\%$ (of the original unit) per day in camp, or 2% per day on march. If magic healing is available, add 1d% to the recovery rate. One healer is required for every 10 injured soldiers to get this bonus. Races with Slow Healing recover half as quickly, and those with Rapid Healing recover twice as quickly. These racial qualities do not affect the magic healing rate of 1d%. Treat races with an average HT above 13 as having Rapid Healing, and treat races with HT of 7 or below as having Slow Healing.

Lost artillery become the property of the victor; after an inconclusive battle, each side retains half its lost artillery and the others are considered destroyed.

Casualty Table

Contest difference..Casualties

-19 or less $(12d + 60)\%$

| | |
|------------|----------------|
| -17, -18 | $(11d + 55)\%$ |
| -15, -16 | $(10d + 50)\%$ |
| -13, -14 | $(9d + 45)\%$ |
| -11, -12 | $(8d + 40)\%$ |
| -9, -10 | $(7d + 35)\%$ |
| -7, -8 | $(6d + 30)\%$ |
| -5, -6 | $(5d + 25)\%$ |
| -3, -4 | $(4d + 20)\%$ |
| -1, -2 | $(4d + 15)\%$ |
| 0 | $(4d + 10)\%$ |
| 19 or more | no losses |

Contest difference..Casualties

| | |
|--------|----------------------|
| 1,2 | $(4d+5)\%$ |
| 3,4 | $(4d)\%$ |
| 5,6 | $(3d)\%$ |
| 7,8 | $(2d+2)\%$ |
| 9, 10 | $(2d)\%$ |
| 11,12 | $(1d+2)\%$ |
| 13, 14 | $(1d)\%$ |
| 15, 16 | $(1d-2)\%$ (1% min.) |

17, 18 (1d-4)% (1% min.)

Second Survival Roll

Any PCs on the losing side of a battle must make a second Survival roll, using the same Risk modifier as for the first roll. Adjust this roll down by -1 for every 3 full points of difference in the Contest of Strategy. If defending, adjust up by any bonus for starred Defensive Position modifiers (see p.00).

If the PC's unit was routed (see Rout), the second Survival roll is made at -2. Any adventuring after that will be directed, at least for a time, toward getting home alive or regrouping with other lost battle comrades.

Roleplaying Battle Scenes

The system presented here will resolve large combats. It is up to the GM to make these interesting for the players -- and vice versa. The GM should always sketch a map of the battlefield (or perhaps of several optional battlefields) to help the PCs visualize the strategy, especially if they are unit or force leaders.

Players whose characters are in leadership positions may attempt to give orders to their troops once the battle has started and any enemy surprises have appeared. PCs who are mere troopers can control only their own fates -- and then, only to a limited extent -- by deciding how much bravery (or cowardice) they will show. But they should describe their actions anyway: not just "I'm going for a -3 on Survival to get a +3 on Glory" but "I'm shouting insults and charging the enemy standard-bearer."

Similarly, the GM should present all morale effects with maximum drama -- during preparations for the battle, at the beginning of battle and when the troops begin to rout.

Remember: roleplaying should be fun. Players should be heroic; after all, each character thinks of himself as the hero of his own story. GMs should remember that they are storytellers; tell the tale well, and reward heroism.

After the Battle

When the battle is finished, there will be opportunities for looting, ransoming prisoners, and regrouping forces.

Loot

Many military units -- not just mercenaries -- depend largely on loot to make life worthwhile. The loot available in even a burned-out and picked-over city can be immense and is up to the GM to settle.

But the loot from a battlefield is also very valuable. The force that holds the field after a fray will be able to recover the arms and armor of all its own casualties, and most, if not all, of the other side's dead. If the foe routed, both its dead and wounded -- all its casualties -- will be left for looting.

Very roughly speaking, the average value of the gear stripped from a killed or captured trooper would equal 1/3 of the cost to "raise" that trooper (see Raising Troops). It would sell for less -- possibly only 20% of that cost, in cash -- but to an army, most or all of the salvage will be useful. Halve these numbers again for cavalry; live horses are expensive, dead ones are rations at best.

Some cultures (e.g., feudal Japan) did not make a practice of looting the battlefield for many reasons. Other cultures may take trophies, such as heads, from their dead enemies. Battlefields were often looted by the locality's poor (bandits or peasants) before the relatives of the dead could make arrangements for burial. Sometimes such scavengers also found soldiers who had been left for dead by their comrades and enemies. In such a case, check the scavenger's reaction roll; he might kill the soldier, ignore him or nurse him back to health.

PCs who have been wounded, or even those who thought themselves dead, may wake up in a peasant's cottage, in the enemy camp, in prison, or as slaves.

Ransom of Prisoners

Especially in aristocratic societies, it can be highly profitable to take a noble foe as a prisoner rather than slay him outright. Many such lords would carry a ransom of hundreds, if not thousands, of dollars.

Some cultures did not hold captured enemies for ransom. They may be either executed, held as hostages for their relatives' good behavior or held for some other fate.

Multiple Combatants

Most battles are fought between two sides, though many individual allies may be on each side. If more than two forces are fighting independently from each other, a multi-party Contest of Strategy can be used with the commander who wins by the greatest margin holding the field, while the others take the effects from the tables based on their difference from the winner. In this case, the Relative Troop Strength Strategy bonus is figured against the average of the other opponents' TS.

Quick and Dirty Mass Combat

If you don't want to take the time to break each side down into its component units, just estimate the force's Troop Strength and overall base morale (possibly by as-signing an "average quality" and "average type" to each force). Apply all other modifiers as before, estimating where necessary. Roll the Quick Contest as before, taking casualties and checking morale, when required, for the entire force.

Two sets of equivalents may help here.

500 irregular infantry are approximately equal to:
330 light infantry, irregular cavalry, or pikemen,
250 medium infantry or light cavalry,
200 heavy infantry,
165 medium cavalry,
125 heavy cavalry,
20 siege engines.

Similarly, 500 raw recruits are approximately equal to 300 green troops, 250 average troops, 200 seasoned troops, 165 veteran troops, or 125 elite troops.

Exceptional Powers in Battle

Combat in many settings can be affected by exceptional abilities, like magic, psionics and superpowers. These powers can be used directly, such as hurling fireballs at enemy troops, or more subtly, such as disabling enemy leaders, scouting enemy forces, or bringing a single morale-shaking disaster to the enemy. Supers with powerful offensive and defensive capabilities should fight as soldiers, using the Troop Strength section to calculate TS. Those supers with less battle-oriented skills, along with mages and psis, should use this section to determine their effect on the battle.

Determining Exceptional Power Available

To determine the exceptional power available to the troops, a Exceptional Strength (ES) must be calculated for each practitioner.

Computing Exceptional Strength

Compute the Exceptional Strength (ES) for each force by computing the number of ES character points invested by each practitioner in their specialty. Mages count points invested in IQ, Magical Aptitude (or Clerical Investment if it grants battle spells), Strong Will and battle-related skills. Psionics count points invested in IQ, Strong Will and battle-related psionic powers and skills. Supers count points invested in IQ, Strong Will and battle-related super powers and skills. If the total is less than 100, the practitioner is not strong enough to affect a mass combat. If the total is 100 or more, use the following table.

| | |
|----------------------|----------------------------------|
| 100 character points | = 1/2 Exceptional Strength point |
| 150 character points | = 1 Exceptional Strength point |
| 200 character points | = 2 Exceptional Strength points |
| 250 character points | = 3 Exceptional Strength points |
| 300 character points | = 5 Exceptional Strength points |
| 350 character points | = 8 Exceptional Strength points |
| 400 character points | = 12 Exceptional Strength points |
| 450 character points | = 16 Exceptional Strength points |
| 500 character points | = 20 Exceptional Strength points |

Add 1 Exceptional Strength point for each additional 10 character points.

Exceptional Strength Modifiers

Mage possesses Powerstone: +1/10 points of Powerstone
Mage possesses enchanted item: +1 to +5 (GM's discretion)
Low mana: x1/4
Normal mana: 0
Very high mana: x 2
Psionics has assistance of booster drugs or technology: +1 to +5 (GMs discretion)

Using Exceptional Powers on the Battlefield

Each player secretly and simultaneously marks the number of points expended on each special effect detailed below (including defense -- see Defending Against Hostile Powers below), after the Troop Strength of both forces have been calculated, but before they are revealed or any die rolls are made.

To use a specific effect, a practitioner must have some power or spell that could produce the desired effect. If all the mages available have no Healing spells, they can not perform battlefield Healing effects. The GM can determine which effects are possible for each side.

Catastrophes

Special powers can attempt to force a Catastrophe (see above) on its opposition by increasing the opponent's Catastrophe roll. Each 2 points expended, will give the foe a +1 modifier on its Catastrophe roll.

Affecting Morale

Exceptional powers can be used to improve the morale of friendly units, or to reduce the morale of enemy units. In either case, one point provides a +1 (or -1) morale modifier for 100 TS of troops. Thus, for example, a unit of 20 Green Heavy Infantry (Total TS 100; Morale roll of 11+) can have its morale modified by +2, giving them the morale of Aver-age troops (13+), or -2, lowering their morale to that of Raw troops (9+), for an expenditure of 2 points.

Healing

Exceptional powers can be used to improve the survival chances of injured troops. One Exceptional Strength point can adjust the result on the Casualty Table down by one line for 100 TS of troops. This option counters and is countered by "Striking against the Foe" below.

Scouting

Exceptional powers can be used to observe enemy forces, and to thereby reduce the effectiveness of an enemy's strategy. If the force with the exceptional individual is being run by the player, successful use of scouting powers will give him some advance warning of the preparations used by the enemy, and allow him to revise his battle plan (GM's discretion as to how much).

If the force is being run by an NPC, abstract this information to a +1 Strategy modifier, costing 3 Exceptional Strength points. More energy

can be expended if desired (particularly if the enemy has special defenses), but no more than a +1 modifier can be gained in any case.

Confounding the Enemy

Special powers can also be used to disrupt the enemy's battle plan. If the force leader knows the enemy battle plan (through diviners, scouting magic or more mundane means), or if he just wants to guess, he can use the exceptional abilities to create conditions adverse to the enemy's plan. Such efforts include flooding a river to be forded, bringing up a dense fog, or even causing an earthquake in a narrow defile.

To do this, the player of the force should describe the effect, and how it would be produced (what spell or psionic skill would be used, etc.). The GM should analyze the effectiveness of the strategy and assign an appropriate Exceptional Strength cost and Strategy roll modifier.

Striking Against the Foe

Rather than providing unique capabilities, many of these powers can simply be hurled against the foe. These special powers can be powerful weapons, and have made the difference between defeat and victory in more than one battle of myth or science fiction. Each Exceptional Strength point can adjust the result on the Casualty Table up by one line for 100 TS of troops.

Defending Against Hostile Powers

Exceptional Strength points can be allocated to defend against hostile powers.

These points are not allocated to other specific effects; rather, they are used to block other effects after the allocations are revealed.

Each point of power allocated to defense blocks 1 point of the opponent's offensive power. Exceptional powers must be blocked in units. It is not possible, for example, to block only 1 enemy ES point allocated to Catastrophe modifiers; these must be blocked in units of 2.

Should more points be allocated to defense than the other side allocated to offensive capability, all of the opponent's power is blocked, but the remainder of the defensive points are wasted.

This ends the "mechanical" portion of mass combat. Dealing with the outcome in terms of the campaign is left to the GM and the players.

Below is a completely worked out battle and two examples of these rules: the armies of Yrth and World War I.

Examples

The examples in this section are based on fantasy war-fare on Yrth and modern combat during World War I. Combined with the above rules, these examples provide all the information needed for a particular culture and time period.

Yrth Armies

The nations of Yrth employ a variety of military organizations and troop types. The available troop types will be described in detail, followed by a section describing the military particulars for each nation.

Troop Types

Heavy Cavalry (HC): Armored cavalry with trained warhorses, heavy lances and other "shock troop" weapons. Megalan and Caithness knights are considered heavy cavalry. Horse archers of this type normally employ crossbows. TS value 8.

Medium Cavalry (MC): Moderately armored cavalry using medium warhorses (with light barding), light lances, spears and other light weapons. TS value 6.

Light Cavalry (LC): Troops mounting light horses, with very little armor; javelins, spears and other light weapons. TS value 4.

Irregular Cavalry (IC): Troops, without formal training, on light horses, with a variety of weapons and armor. Barbarians fit this troop type. TS value 3.

Heavy Infantry (HI): Footmen, in full plate, with axes, great swords and other heavy hand weapons. Dismounted knights are one excellent example of this type of force. TS value 5.

Medium Infantry (MI): Moderately armed footmen, in half-plate or less, fighting with polearms, swords and other medium weapons. Most military troops fall into this category. TS value 4.

Light Infantry (LI): Regular footmen and trained spear levies wearing little or no armor and fighting with polearms, spears, javelins, short swords and other light skirmish weapons. Most of the militias and tribal warriors of Yrth fall into this description. TS value 3.

Irregular Infantry (II): Irregular footmen and untrained spear levies employing any armor and weaponry available. Barbarians, pioneers, miners and other specialists are included in this troop type. They are likely to be experienced. Peasant levies also are irregular infantry, but inexperienced. TS value 2.

Pikemen (PI): Lightly armored -- generally leather and light metal combinations -- and equipped with pikes or poleaxes, and dirks. Pikemen are typical in Megalan Imperial legions, but rare in forces of other countries. TS value 3.

Miners (MN): Mining crew of 10+ miners and a Demolition specialist. TS value 2 (in an open battle) or 8 (to the attacker in a siege). Miners at TS 8 can comprise no more than 10% (up to 1,000) or 5% (over 1,000) of the TS of a siege force. Miners over this percentage are TS value 2.

Small Siege Engine (SE): A small stone or dart-thrower, with crew of two. TS value 25. Siege engines of both sizes can comprise no more than 10% of the TS of a field army, and no more than 50% of the TS of a castle.

Large Siege Engine (LE): A large stone or dart-thrower, with crew of four. TS value 50. Siege engines of both sizes can comprise no more than 10% of the TS of a field army, and no more than 50% of the TS of a castle.

Troop Costs

The cost to raise troops is as follows, per man:

Heavy Cavalry: \$14,000

Medium Cavalry: \$9,000

Light Cavalry: \$5,000

Irregular Cavalry: \$3,000

Heavy Infantry: \$9,000

Medium Infantry: \$5,000

Pikemen: \$2,000

Light Infantry: \$1,500

Irregular Infantry: \$200

Small Siege Engines: \$15,000 average -- varies widely, includes armor.

Large Siege Engines: \$25,000 average -- varies widely, includes armor.

Add \$500 per man if the troops are slingers, \$1,000 for ordinary archers, \$1,500 for archers with composite bows, longbows or crossbows.

The cost to maintain a soldier in the field is \$200; to maintain a knight and horse costs \$800. Monthly pay is expected to be equal to 10% of the cost to raise listed above, regardless of experience.

Megalos

The backbone of the Megalan military is the Imperial Legion, organized after the Roman model of ancient armies (see Military Organization and Command, p. 00). All legions are pure infantry. These are trained professionals (usually Seasoned or better), divided into heavy, medium and light legions. Private legions exist, usually controlled by powerful nobles, but their morale and training is usually lower (Green to Seasoned) than for the imperials. The Imperial Legions are the most powerful fighting force on Yrth.

The True Dragon Legion is an elite heavy legion composed of reptile men, whose ancestors were slaves, freed to subdue an island. They are fanatically loyal to the empire, and act as the Emperor's Guard.

Megalan knights are heavy cavalry, often of Elite quality, and are organized along feudal lines.

Megalos deploys small units of mounted scouts and light cavalry, no larger than a company in size.

Each legion and many smaller units have powerful contingents of magicians, expert in battle magic. Megalan military tactics rely heavily on magic, so they are at a disadvantage in Low and No Mana areas.

Araterre

This country has no armies. If necessary, the inhabitants could fight as Irregular Infantry (II) with the fencers being of Elite quality.

Caithness

Caithness is a feudal country, relying upon their knights (Seasoned to Elite Heavy Cavalry) for protection, backed up by feudal levies of men-at-arms, mostly Light through Heavy Infantry (LI, MI and HI) with other types possible. Because of the Low Mana of the area, Caithness does not use magic in battle.

Al-Haz

The desert warriors of Al-Haz are nearly all medium and light cavalry with regular bows. The armies of Al-Haz are feudally organized. For religious reasons, magic does not play a part in the military of Al-Haz.

Al- Wazif

Al-Wazif maintains a standing army composed of most troop types and organized similarly to the ancient Persians. The soldiers are well-trained and are of Average or better quality. Individual lord's have their own feudal armies, as well. Mages are very important to the Al-Wazifi military, and stockpiles of magic items are hidden around the country in case of war.

Cardiel

Cardiel has two legions, one Seasoned Heavy and one Veteran Medium, carryovers from the period of Megalan domination. The rest of their army consists of knights and feudal levies, similar to Caithness.

Sahud

Each Sahudese lord can call upon troops of all types, organized feudally. The thought of fighting these soldiers, though, whose rules of war are so strange, would give a Megalan commander nightmares.

The Nomad Loads

The various Nomad tribes field differing types of warriors, but most are either Irregular Infantry or Cavalry (II or IC), often of Seasoned to Elite quality. They are organized around tribal clans.

Non-Human Races

Centaurs: Treat as Irregular Cavalry (IC) of Average or better quality. Centaurs are tribally organized. Racial TS modifier is +2.

Dwarves: Always Medium or Heavy Infantry (MI and HI) of Seasoned or better quality. Dwarves are also supreme miners, and Dwarvish MN troops have a TS of 10 in a siege, and TS of Medium or Heavy Infantry in open battle. Use either modern or Classic Greek organization. If the Dwarvish mountains are attacked, all adult dwarves, male and female, would fight, fielding a powerful force. Racial TS modifier is +1.

Elves: Light Infantry or Cavalry composite or long bowmen (LI or LC), usually of Seasoned or better quality. In their home territory, elves are the consummate guerrilla warriors. Feudal organization is used by the

elves. Because of their racial Combat Reflexes, Elves cannot be Irregulars. Racial TS modifier is +0.

Giants: Usually Medium Infantry (MI) of Average or better quality. They can throw rocks like a small siege engine and they can thus be counted as such. Giants are tribally organized. Racial TS modifier is +11.

Gnomes: Gnomes rarely fight outside their forest homes, but if attacked, they would be Irregular Infantry (II) of Green to Seasoned quality. Every adult would be a part of the fighting force. A Gnome village can display a surprising force with little preparation. Racial TS modifier is 0.

Goblins: Goblins rarely fight open battles. If a village was attacked, treat as Irregular Infantry of Green to Seasoned quality. Racial TS modifier is -1.

Hobgoblins: Treat as Irregular Infantry (II) of Green to Veteran quality. Hobgoblins organize along tribal lines. Racial TS modifier is +0.

Halflings: Treat as Irregular Infantry (II) with slings and other missile weapons, of Green to Seasoned quality. Racial TS modifier is -1

Kobolds: Treat as Irregular Infantry (II) of Green to Seasoned quality, but you never know how many are going to come out of the woods. Racial TS modifier is -1.

Minotaurs and Ogres do not organize into armies, but would be considered Irregular Infantry of Average or better quality. They both organize along tribal lines. Ogre TS modifier is +7. Minotaur TS modifier is +3.

Orcs: Usually infantry of any type (LI, MI, HI, or II) of Green to Seasoned quality, though a few small groups of Veteran or Elite quality exist. Orcs organize tribally. Racial TS modifier is +1.

Reptile Men: Usually Medium or Heavy Infantry (MI or HI) of Seasoned or better quality. Rumors of reptilian riding beasts (allowing cavalry) have been heard in far western Caithness, but their truth has not been verified. Wild Reptile Men organize along tribal lines; civilized Reptile Men adopt the organization of their host country. Racial TS modifier is +3.

Zombies: Light. Medium or Heavy Infantry. Zombies never check morale. TS modifier is +3.

Skeletons: Light, Medium or Heavy Infantry. Skeletons never check morale. TS modifier is -1.

Dragons: Hatchling is TS 15, Young is TS 30, Adolescent is TS 45, Adult is TS 60, and Monstrous is TS 80.

Lycanthropes: Werewolves are TS 5 each. Werebears are TS 10 each. Wereboars are TS 10 each. Weretigers are TS 15. Wereeagles are TS 7.

Armies of World War I

The nations involved in World War I were fairly standardized in organization and troop types. The available troop types will be described in detail. The composition of the armies of the nations involved in World War I is sufficiently similar to be treated the same for the purposes of GURPS Mass Combat.

Troop Types

Light Cavalry (LC): Troops riding light horses, with little armor, using rifles and sometimes sabers. TS value 10.

Light Infantry (LI): Regular soldiers wearing little or no armor and using rifles. Most of the armies of the war fall into this description. TS value 9.

Irregular Infantry (II): Irregular foot soldiers and untrained fighters employing whatever weaponry is available. Specialists are included in this troop type. They are often experienced. Villagers also are irregular infantry, but inexperienced. TS value 2. Add any ranged weapon bonuses that apply.

Light Armor (LA): A light tank, with crew of 2-3. TS value 15. Since the tank was experimental during WWI, the TS value is reduced appropriately.

Fighter Aircraft (FA): A plane with a crew of 1 or 2. TS value 25. Since aircraft were quite new to warfare during this period, their TS is reduced by half.

Modern Artillery (MA): A large cannon or howitzer, with crew of four. TS value 100. Artillery can comprise no more than 10% of the TS of a field army.

Battle Example: Caliburn the Bravo Goes to War

Caliburn, a thug for hire, lives in Bannock on the border of Megalos. Their hereditary enemy is Al-Wazif, since they have been invaded by them (and have returned the favor) many times over the centuries. One summer the Al-Wazif border army marches in to attack the city. Caliburn and 14 of his fellow thugs, er, bodyguards decide to volunteer to help fight off the enemy (because otherwise the local magistrate will arrest them as unpatriotic vagrants). They have no military training and have never fought in a battle before, so they are Raw Irregular Infantry. The 15 of them at TS 2 are a unit, counted at half base TS because of their inexperience: TS 15 in all.

The rest of the Megalan army consists of a few cohorts of the 5th Megalan Heavy Legion ("Warhammer"), a couple of medium mercenary companies, the city militia (including 120 archers -- 600 TS) and numerous irregular units like Caliburn's, for a total TS for the Megalan force of 3,500. Unfortunately, there are no knights or other cavalry in the area. The commander of the city militia, a retired legionary, is acting as force commander and is a Seasoned veteran with a Strategy skill of 14.

The Wazifi army has a variety of troop types, including cavalry and 40 Light Cavalry archers (240 TS), for a total TS of 4,000. The commander of the Al-Wazif force is of Veteran quality with a Strategy roll of 16.

Neither side is using special forces, but both sides have mages. The Megalan army has a total of 4 ES points and the Wazifi army has 3.

The mages of Megalos decide to use a point to reduce the morale of one of the Seasoned Medium Infantry 20-man units (TS 96 reduced to TS 86), as well as Striking it. Another point is spent on Striking an Elite Heavy Infantry unit (TS 100). The last point is spent on Healing for one of the Medium Infantry mercenary platoons (TS 96).

The Wazifi mages use two points to Strike at one of the mercenary companies. The GM secretly determines that this company contains the mercenary platoon protected by Healing. The last point was used to improve the morale of an Average Medium Infantry unit (TS 40 increased to 48) by 2.

The Catastrophe roll is next. The Bannock commander rolls an 8, indicating an enemy surprise and giving -1 to the Strategy roll. The GM determines that a company of Wazifi Heavy Cavalry was missed by the Megalan intelligence reports. The commander of the Al-Wazif army rolls a 17, indicating a unit commander has been killed, giving a -2 to the Strategy roll and -3 Morale to his unit. The GM determines that this is

the unit of Light Cavalry archers (TS 240 drops to 168). The final Troop Strength of the Wazifi army is 3,926.

The other Strategy modifiers are calculated below:

Relative Troop Strength bonus: Al-Wazif gets + 1 to their Strategy roll ($3,942/3,500 = 1.36$).

Defensive Position: No modifiers, since the Bannock army is meeting the Wazifis in an open-field battle.

Special Unit Superiority: Megalos gets a +2 for archer superiority ($600/168 = 3.2$). Al-Wazif gets a +3 for cavalry superiority, since Megalos has no cavalry in the field.

Special Circumstances: Megalos is on his home ground and gets a +2 bonus.

Battle Plans: After reviewing the battle plans of both force commanders, the GM decides neither battle plan is substantially better and gives no bonus.

The total Strategy bonuses are +2 for Al-Wazif and +3 for Megalos.

In the quick Contest of Strategy, the Wazifi commander rolls a 14 (made by 4) and the Megalan commander rolls a 10 (made by 7) for a difference of 3 in Megalos' favor. Since this is an open-field battle, Table A is used, yielding an inconclusive" result. All units on both sides roll Morale and take casualties, and all PCs make Survival and Glory rolls.

Caliburn has IQ 12 (Tactics defaults to IQ-6) and Shortsword skill at 15. His Battle skill is therefore $(6+15)/2 = 10.5$, rounded down to 10. The player chooses a Risk of -2, giving him a Survival roll of 8 and a Glory roll of 12. Then the player rolls a 10 for Survival (missing by 2) and an 11 for Glory (making by 1). Looking on Column A of the damage Table under TL 3, Caliburn takes 1d+2-DR (4 points damage), but fights competently. The battle is inconclusive. The thugs' base Morale is only 6, but it is +3 because they are defending their home territory against a hereditary foe. On a roll of 8, they hold their position. Caliburn has his buddy with the First Aid skill treat him, and recovers 2 points.

The Wazifi unit which lost its commander has an adjusted morale of 11 (+1 for hereditary foe). They roll a 15, indicating they withdraw in order. If they had not been fighting a hereditary foe, they would have routed.

Since the Bannock army won the Strategy contest by 3, they look under 3 on the Casualty Table (4d%), while the Wazifi army uses the -3 row (4d+20%), yielding base casualty rates of 13% and 30% respectively, for unarmored troops. Individual units apply the armor modification to the casualty rate (down one, two or four lines on the table for Light, Medium, and Heavy units). Those units that suffered magical Strikes increase their casualty rates by one line on the chart, while those that were magically healed reduce the rate by one line. After calculating all the casualties, the Bannock army has 3,268 TS and the Wazifi army has 3,351 TS. The odds are now better for Bannock.

The next day, Caliburn is more cautious and chooses a Risk of -1, giving him a Survival roll of 9 and a Glory roll of 11. One of the thugs has been killed. Caliburn's player rolls 13 for Survival (missing by 4) and 10 for Glory (succeeding by 1). Caliburn is wounded twice for a total of 3 hits of damage, and again fights competently. Today Megalos wins a Definite Victory, and the Al-Wazif army withdraws to its homeland. Another one of the thugs has been killed; the others are now more experienced at fighting and count as Green troops rather than Raw ones, bringing their TS up to 80% of base: $(13 \times 2 \times 0.8)$ gives TS 20. Caliburn and his 12 friends return to their city, full of stories of their glorious deeds, without which the city would never have succeeded in repelling the devilish invaders.

FORCE ROSTER

Troop name..Troop type..Troop quality..Morale..# men..Basic
TS..HT..Leader: Strat..Tact..Battle

Handwriting practice lines for the letter 'a'.

Each row consists of four horizontal lines (top, midline, baseline, and descender line). The letter 'a' is written on each row, showing its placement relative to the lines.

The first row shows the letter 'a' written on the top line, midline, baseline, and descender line.

The second row shows the letter 'a' written on the top line, midline, baseline, and descender line.

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